

Amendments to the claims:

The following listing of the claims replaces all prior listings and versions of the claims in the application:

Listing of the Claims

Claim 1 (currently amended): A control signal system in a switch including N ports and a buffer for registering data packets comprising:

an empty buffer counter for counting how much space in said buffer remains available;

N port-packet-counters for respectively counting how many of said data packets in said buffer are intended to be respectively sent to specific ones of said N ports,

wherein said control signal system is a flow control signal system for controlling a flux of said data packets to be sent to said specific ones of said N ports; and

an alarming device for alarming that said N ports have reached a threshold state.

Claim 2 (currently amended): The control signal system in a switch as set forth in claim 1, wherein said buffer ~~stack~~ is a buffer stack comprising a plurality of buffer units therein.

Claim 3 (currently amended): The control signal system in a switch as set forth in claim 2, wherein each of said buffer units is to receive and store a data packet sent from a network to be sent to a specific port in said switch.

Claim 4-5: (canceled)

Claim 6 (currently amended) The control signal system in a switch as set forth in claim ~~[[5]]~~ 1, wherein said alarming device includes N alarm units ~~[[is]]~~ for respectively alarming that said N ports have reached threshold states.

Claim 7 (currently amended) The control signal system in a switch as set forth in claim 6, wherein said empty buffer counter has a counting value less than a preset threshold value and a specific one of said N ~~port-packets-counters~~ port-packet-counters has a counting value greater than a threshold value preset therein.

Claim 8 (original) The control signal system in a switch as set forth in claim 6, wherein said N alarm units respectively comprises N comparators and N signal generators.

Claim 9 (currently amended) The control signal system in a switch as set forth in claim 8, wherein each of said N comparators sends a triggering message corresponding to said threshold state to a respective one of said N signal generators after said alarm units respectively ~~alarms~~ alarm.

Claim 10 (original) The control signal system in a switch as set forth in claim 8, wherein said respective one of said N signal generators is triggered by said triggering message for sending a flow control signal to all of said N ports except said specific port.

Claim 11 (currently amended) The control signal system in a switch as set forth in claim 1, wherein said N ports are output/input ports ~~to be outputted/inputted~~ for outputting/inputting said data packets through said N ports.

Claim 12-22 (Canceled)

Claim 23 (Currently amended) A controlling medium for controlling a transmission of data packets in a flow control signal system in a switch having N ports and a buffer therein comprising:

a storing means for receiving said data packets from a network to be sent to a specific port and storing in said buffer;

a computing means for counting a flux of said data packet to be sent to said specific port, wherein said flux is down-counted by an empty buffer counter counting how much space in said buffer remains available and up-counted by one of N port-packet-counters respectively counting how many of said data packets in said buffer are intended to be respectively sent to specific ones of said N ports;

an alarming means for causing an alarming state for preventing said specific port from being overfilled up with said data packets;

a triggering means for triggering a message to stop any data packet to be sent to said specific port from being transmitted into said switch; and

a processing means for processing said data packets transmitted to said specific port until all data packets in said switch have been processed.

Claim 24 (original) The medium as set forth in claim 23, wherein said control signal system further comprises respective N alarming units for respectively alarming said switch from being overfilled with said data packets to be sent to said N ports.

Claim 25 (Canceled)

Claim 26 (currently amended) The medium as set forth in claim [[25]] 23, wherein said empty buffer counter comprises a preset buffer threshold value denoting a minimum safety level for allowing said data packets to be sent to said switch.

Claim 27 (original) The medium as set forth in claim 26, wherein said one of N port-packet-counters comprises a respective port threshold value denoting a maximum safety level for allowing of said data packets to be sent to a corresponding one of said N ports.

Claim 28 (currently amended) The medium as set forth in claim 27, wherein said alarming state is established when said empty buffer ~~counter~~ counts count is less than said preset threshold and one of said N port-packet-counters counts is greater than said respective port threshold value.

Claim 29 (currently amended) The medium as set forth in claim 23, wherein said message in said triggering means is triggered by another data packet ~~come~~ coming from a second port in said switch to be sent to said specific port.

Claim 30 (currently amended) The medium as set forth in claim 29, wherein said message is sent by ~~one of comparators respectively~~ a comparator set in said system corresponding to said second port.

Claim 31 (currently amended) The medium as set forth in claim 30, wherein said message is to be sent to ~~one of signal generators~~ a signal generator corresponding to said ~~one of said comparators~~ comparator.

Claim 32 (new) A method for processing flow control signal in a flow control signal system in a switch that has a set of N ports and a buffer stack therein, comprising steps of:

- (a) sending a data packet to be sent to a first port from a network and storing the data packet into one of a plurality of buffer implements disposed in the buffer stack;
- (b) deducting 1 from an empty buffer counter disposed in the switch and adding 1 to one of N port-packet-counters corresponding to the port set in the flow control signal system;
- (c) respectively computing whether both the values of the empty buffer counter and the port-packet-counters are less than a buffer-examined threshold and greater than a port-packet-examined threshold;
- (d) announcing an alarming state for informing that the data packets from the network to be sent to the first port will be filled;
- (e) finding a second data packet from a second port to be sent to the first port;
- (f) sending and storing the second packet into another buffer implement of the buffer stack, and

triggering one of (N-1) alarm units corresponding to the second port for stopping other data packets from source ends connected with the other ports in the network transporting to the switch; and

(g) repeating steps (a)-(f) after the alarming state is removed to process the data packets to be sent to the first port until all data packets in the switch have been processed.

Claim 33 (new) The method as set forth in claim 32, further comprising, before the performance of said step (a), a step of transporting said data packet from the network to the switch.

Claim 34 (new) The method as set forth in claim 32, wherein said empty buffer counter and one of N port-packet-counters in said step (b) are respectively for recording a residual value of an empty number in the buffer stack and recording the number of data packets to be sent to the first port.

Claim 35 (new) The method as set forth in claim 32, wherein before said step (c) said method further comprises a step of examining N ports except for the first port.

Claim 36 (new) The method as set forth in claim 32, wherein said buffer-examined threshold in said step (c) is defined by presenting a value by a user.

Claim 37 (new) The method as set forth in claim 32, wherein said port-packet-examined threshold in said step (c) is defined by presenting another value by a user.

Claim 38 (new) The method as set forth in claim 32, wherein said alarming state in said step (d) is announced by N alarming units set in said flow control signal system except for one corresponding to said first port.

Claim 39 (new) The method as set forth in claim 32, wherein said step (f) further comprises a comparing step and a triggering step respectively for one of N comparators set in said flow control signal system to compare said values in said step (c) and one of N signal generators set also in said flow control system to trigger a triggering message to be sent to another port.

Claim 40 (new) The method as set forth in claim 39, wherein said triggering message is for stopping the network connected to another port transporting said data packets to said switch as defined in said step (f).